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07/715272

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(12) **United States Patent**
Carter et al.

(10) Patent No.: **US 6,407,213 B1**
(45) Date of Patent: **Jun. 18, 2002**

(54) **METHOD FOR MAKING HUMANIZED ANTIBODIES**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **08/146,206**

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(2), (4) Date: **Nov. 17, 1993**

Related U.S. Application Data

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Jun. 14, 1991, now abandoned.

(51) Int. Cl.⁷ **C07K 16/00**

(52) U.S. Cl. **530/387.3; 435/69.6; 435/69.7;**
435/70.21; 435/91; 536/23.53; 424/133.1

(58) Field of Search **435/69.6, 69.7,**
435/70.21, 91, 172.2, 240.1, 240.27, 252.3,
320.1, 328; 536/23.53; 424/133.1; 530/387.3

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(57) **ABSTRACT**

Variant immunoglobulins, particularly humanized antibody polypeptides are provided, along with methods for their preparation and use. Consensus immunoglobulin sequences and structural models are also provided.

82 Claims, 9 Drawing Sheets